

ABSTRACT**Print Mechanism Utilizing an Optical Imaging Sensor**

5 A print mechanism and method for printing are disclosed. The print mechanism includes a print head assembly, an actuator for moving the same, and a controller. The print head assembly includes a position detector and a marking device. The position detector includes an imaging device for periodically forming an image of a portion of a print medium. The actuator moves the print head assembly relative to the print medium in a predetermined
10 direction. The controller compares first and second images formed by the imaging device at first and second times, respectively, while the print head assembly moves relative to the print medium and determines a displacement of the print head assembly between the first and second times from the images. The controller causes the marking device to mark the print medium at locations determined by the determined displacement.